



THAI AGRICULTURAL STANDARD

TAS 2-2003

MANGOSTEENS

**National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives**

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National Bureau of Agricultural Commodity and Food Standards

Ministry of Agriculture and Cooperatives

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Rambutan and Long Kong**

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The mangosteen fruit is an agricultural commodity that Thailand has been producing and exporting as an important world fruit. In order to have the fruit better accepted nationally and internationally in term of food safety and export promotion. The Ministry of Agriculture and Cooperatives of Thailand encourages the establishment of a standard for mangosteen fruits.

The provisions of this standard are based upon the information of the following documents.

Office of Agricultural Commodity Standards and Inspection. B.E. 2544 (2001). Notification of the Ministry of Agriculture and Cooperatives on Thailand Standard for Mangosteen Fruits. B.E. 2544 (2001). Notified on 12 March 2001 (B.E. 2544).

FAO/WHO. 1997. Codex Alimentarius Volume 5B. Fresh Fruit and Vegetables, CODEX STANDARD FOR MANGOSTEENS (CODEX STAN 204 - 1997). Joint FAO/WHO Food Standard Programme, FAO, Rome. 5 p.

Remark:

The standard title has been revised from “Thai Agricultural Commodity and Food Standard (TACFS X-XXXX)” to “Thai Agricultural Standard (TAS X-XXXX)” in accordance with the application of the Agricultural Standards Act B.E. 2551 (2008).



**NOTIFICATION OF THE NATIONAL COMMITTEE ON
AGRICULTURAL COMMODITY AND FOOD STANDARDS
SUBJECT: THAI AGRICULTURAL COMMODITY AND FOOD STANDARD:
MANGOSTEENS
B.E. 2546 (2003)**

It is appropriate to establish the national standard for mangosteens for the benefit of quality improvement, trade facilitation and consumer protection. Therefore, the National Committee on Agricultural Commodity and Food Standards notifies the establishment of Thai Agricultural Commodity and Food Standard entitled Mangosteens to be used as a voluntary standard as attached herewith.

Notified on 6 November B.E. 2546 (2003)

Mr. Sora-at Glinpratun

Minister of Agriculture and Cooperatives

Chairperson of the National Committee on Agricultural Commodity and Food Standards

THAI AGRICULTURAL STANDARD

MANGOSTEENS

1 DEFINITION OF PRODUCE

This standard applies to commercial varieties of mangosteens grown from *Garcinia mangostana* L. of the Guttiferae family, to be supplied fresh to the consumer.

2 PROVISIONS CONCERNING QUALITY

2.1 MINIMUM REQUIREMENTS

2.1.1 In all classes, subject to the special provisions for each class and the tolerances allowed, the mangosteens must be as follows:

2.1.1.1 Whole.

2.1.1.2 With the calyx and pedicel intact.

2.1.1.3 Fresh in appearance.

2.1.1.4 Sound and not cracked, produce not affected by rotting or deterioration.

2.1.1.5 Clean, practically free of any visible foreign matter.

2.1.1.6 Practically free of pests affecting in general appearance of the produce.

2.1.1.7 Practically free of damage caused by pests or other factors affecting the quality of fruit flesh.

2.1.1.8 Free from damage caused by low and/or high temperature.

2.1.1.9 Free of any foreign smell and /or taste.

2.1.1.10 Allowing the fruit to be cut open normally and the flesh is easily separated from the skin.

2.1.2 The development and condition of the mangosteens must ensure a continuation of the ripening process until they reach the appropriate degree of ripeness (the skin should be at least of the reddish purple patch or spot) and arrive in satisfactory condition at the place of destination.

2.2 CLASSIFICATION

Mangosteens are classified in three classes defined below:

2.2.1 "Extra" Class

Mangosteen in this class must be of superior quality with complete calyx and pedicel. They must be of very slight superficial defect, provided these do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package.

Translucent flesh and/or yellowish latex stains in the fruit shall not exceed 5 percent by number or weight of the delivered lot.

2.2.2 Class I

Mangosteens in this class must be of good quality. The slight defects are allowed, the total defect area per fruit shall not exceed 30 percent of the surface area, provided these do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package.

Translucent flesh and/or yellowish latex stains in the fruit shall not exceed 10 percent by number or weight of the delivered lot.

2.2.3 Class II

This class includes mangosteens which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

Translucent flesh and/or yellowish latex stains in the fruit shall not exceed 20 percent by number or weight of the delivered lot.

3 PROVISIONS CONCERNING SIZING

Size is determined by weight or diameter at the equatorial of the fruit, in accordance with Table 1:

Table 1 Provisions concerning sizing

Size Code	Weight (in grams)	Diameter (in millimeters)
1	>125	>62
2	101-125	59-62
3	76-100	53-58
4	51-75	46-52
5	30-50	38-45

4 PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

4.1 QUALITY TOLERANCES

4.1.1 "Extra" Class

Five percent by number or weight of mangosteens not satisfying the requirements of the class, but meeting those of class I or, exceptionally, coming within the tolerances of the class. Netted skin fruit caused by insect is excluded.

4.1.2 Class I

Ten percent by number or weight of mangosteens not satisfying the requirements of the class I, but meeting those of class II or, exceptionally, coming within the tolerances of the class.

4.1.3 Class II

Ten percent by number or weight of mangosteens not satisfying the requirements of the class nor the minimum requirements and without rotten fruit.

4.2 SIZE TOLERANCE

For all classes ten percent by number or weight of mangosteen not satisfying the requirements as regards sizing, but falling within the size immediately above and/or below those indicated in Section 3.

5 PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

The contents of each package must be uniform in color, quality and size. The visible part of the contents of the package must be representative of the entire contents.

5.2 PACKAGING

Mangosteens must be packed in such a way as to protect the produce properly. The materials used inside the package must be new, clean and of a quality such as to avoid causing any damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labeling has been done with non-toxic ink or glue.

5.2.1 Description of Containers

The containers shall meet the quality, hygiene, and resistance characteristics to ensure suitable handling, shipping and preserving of the mangosteens. Packages must be free of all foreign matters and smell.

6 MARKING OR LABELLING

6.1 CONSUMER PACKAGES

Each package shall bear the following particulars, legibly marked, and without false or deceptive information.

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled with the name of the produce "Mangosteens"

6.1.2 Net weight in metric system

6.1.3 Distributor information

Name and address of distributor or packer or registered trademark.

6.1.4 Country of Origin

Country of origin if not specify, the consumer may be misled or deceived.

6.2 NON-RETAIL CONTAINERS

Each package must bear the following particulars, in the documents accompanying the shipment, in the label, or on package, with legibly and indelibly marked.

6.2.1 Identificatioj

Name and address of exporter, packer and/or dispatcher, Identification code (optional)

6.2.2 Name of produce “Mangosteens”.**6.2.3 Origin of Produce**

Country of origin and/or local place name where grown.

6.2.4 Commercial Identification**6.2.4.1 Class;****6.2.4.2 Size (size code or minimum and maximum diameter in millimetres, respectively);****6.2.4.3 Net weight in metric system.****6.3 LAGUAGE**

Label of produce must be in Thai Language. Produce label for export can be in any language.

6.4 OFFICIAL INSPECTION MARK OR CERTIFICATION MARK

Comply with the provisions and condition of the inspection or certification agency recognized by Ministry of Agriculture and Cooperatives of Thailand.

7 FOOD ADDITIVE

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Food Additives.

8 CONTAMINANTS

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Contaminant.

9 PESTICIDE RESIDUES

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Pesticide Residues.

10 HYGIENE

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Hygiene. Harvest and handling of various steps including storage and transport of mangosteens must be carried out hygienically in order to prevent contamination which will be harmful to consumers.

11 METHODS OF ANALYSIS AND SAMPLING

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Methods of Analysis and Sampling.